



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
18.01.2012 Bulletin 2012/03

(51) Int Cl.:
B64C 13/42 (2006.01)

(43) Date of publication A2:
03.09.2008 Bulletin 2008/36

(21) Application number: **08102039.8**

(22) Date of filing: **26.02.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

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(30) Priority: **27.02.2007 US 711295**

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(54) **Load optimized redundant flight control surface actuation system and method**

(57) An aircraft flight surface control system and method simultaneously provides the benefits of both an active/active system architecture and an active/standby system architecture. The system is preferably implemented using hydraulic actuator assemblies (202H, 204H, 206H) and electromechanical actuator assemblies (202E, 204E, 206E) coupled to the same flight control surface. During normal system operations the electromechanical actuator assemblies are energized to supply a relatively minimal force to associated flight control surfaces. In effect, the electromechanical actuators, although energized, may be pulled along by the associated hydraulic actuator assemblies, until needed. Thus, the electromechanical actuator assemblies are controlled in a manner that closely resembles the active/standby architecture.

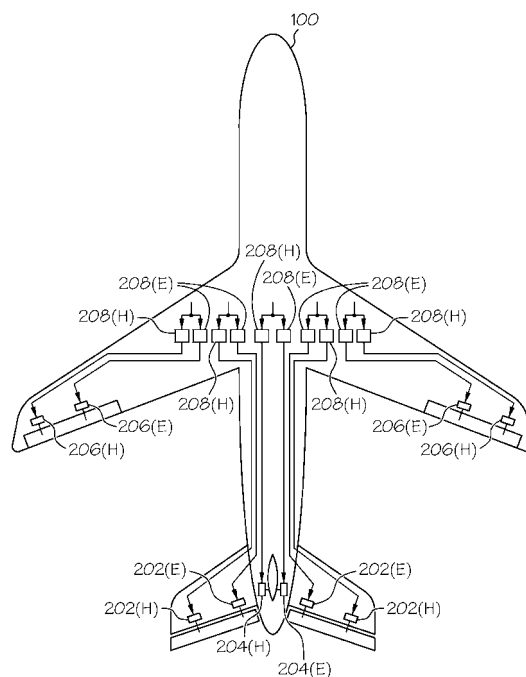


FIG. 2



EUROPEAN SEARCH REPORT

Application Number
EP 08 10 2039

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	* page 11, line 25 - page 16, line 23; figures 1,3 *	4-8	
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			TECHNICAL FIELDS SEARCHED (IPC)
			B64C G05D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 12 December 2011	Examiner Raffaelli, Leonardo
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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